

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1-33 (canceled)

Claim 34 (currently amended): ~~Raster probe microscope according to claim 30~~ A raster probe microscope for the examination of sample surfaces, comprising:

a raster probe;

a holding device for a sample with the sample surface to be examined;

an arrangement for moving the raster probe and/or the sample by which the probe and sample can be brought into contact so that they interact with one another in a given manner;

an arrangement for detecting the relative movement of the probe and sample;

an arrangement for controlling the movement of the raster probe and/or sample and for exciting a vertical first raster probe and/or sample oscillation and for exciting at least one of a vertical and horizontal second raster probe and/or sample oscillation; and

an arrangement for detecting at least one of a vertical and lateral deformation of the raster probe in a vertical first oscillation and at least one of a vertical and horizontal second oscillation;

the arrangement for detecting deformation recording two measuring signals characterizing the deformation of the raster probe in a vertical first oscillation and at least one of a vertical and horizontal second oscillation of the raster probe and/or sample, and characterized by periodic raster-probe and/or sample oscillations,

wherein the vertical oscillation of the raster probe and/or of the sample is additionally excited or modulated with a ~~second~~ frequency of at least 1 kHz and a ~~second~~ an amplitude of at least 0.1nm.

Claim 35 (new): Raster probe microscope according to claim 34, wherein the frequency ranges from 5 kHz to 1 MHz and the amplitude from 1 to 10 nm.

Claim 36 (canceled)

Application Serial No. 09/869,789  
Amendment dated August 18, 2004  
Reply to Final Office Action dated May 20, 2004

Claim 37 (new): Raster probe microscope according to claim 34, wherein the frequency ranges from 10 to 100 kHz and the amplitude from 1 to 30 nm.

Claims 38-54 (canceled)